NIBE

NIBE Exhaust air

A NEW GENERATION OF HEAT PUMPS

WHY THROW OUT OLD ENERGY WHEN YOU CAN RECYCLE IT INSTEAD?

An exhaust air heat pump is basically an energy recycling system. It collects energy from the warm inside air as it leaves your home via the ventilation system, and re-uses it to heat up fresh incoming air and tap water.

If you're building a new house or developing new apartments, now's the perfect time to take advantage of NIBE's energy efficient heating technology. Install an exhaust air heat pump and you can enjoy a healthy, oxygen-rich atmosphere inside your home, at the same time as reducing your electricity consumption by more than 50%.

It's amazing, but true. We know, because we've already been using heat pump technology in Sweden for over 30 years. What's more, exhaust air heat pumps have been more or less mandatory in all Swedish houses built since the 1980s, due to changes in Swedish building regulations, which is why NIBE's developers have had plenty of time to refine the technique!

WHEN TO CHOOSE AN EXHAUST AIR HEAT PUMP?

NEW BUILD OR REPLACEMENT?

For an exhaust air heat pump to work, the necessary ventilation system has to be constructed at the same time as the house itself. It is neither cost-effective nor practical to install an exhaust air system after the house has been built. This means there are two very specific situations in which you should choose a NIBE exhaust air heat pump:

1. Building a new house or developing new apartments?
Choose an exhaust air heat pump at the planning stage and the necessary ventilation ducts will be included in your home's design. When your house is ready and the exhaust air heat pump is installed, you can start to enjoy the most efficient indoor heat recycling on the market. Fresh warm air will flow into your home, hot water will run from your taps and your energy bills will be a fraction of the usual amount!

When building a new house or developing new apartments, there are numerous heating systems and different combinations of energy sources to choose from. The one you select will obviously depend on the size of the house and the household's energy demands, as well as the extent of your 'green ambitions'. However, as a rule of thumb, a NIBE exhaust air heat pump is the most cost-efficient solution for small to medium sized homes. For larger houses, we recommend NIBE's FLM exhaust air module combined with a ground source heat pump.

2. Time to replace an old exhaust air heat pump?
If your home was originally constructed to accommodate an exhaust air heat pump, and the original pump is reaching the end of its service life. This is the perfect time to switch to one of NIBE's new generation of heat pumps, and make your heating system more energy efficient than ever.

About 50% of the exhaust air heat pumps sold in Sweden by NIBE go to replace existing ones. We have both the products and specialist expertise to provide you with an exhaust air heat pump that matches your exact needs. Whatever the model and make of your old heat pump, we can offer a suitable replacement.

An exhaust air pump is an absolute must for newly built, well-insulated houses. For a very reasonable investment, it gives you correct ventilation and the lowest possible energy consumption per square metre.

HOW DO EXHAUST AIR HEAT PUMPS WORK?

An exhaust air heat pump extracts air via ventilation ducts positioned in the wet rooms of the house such as bathrooms, kitchens* and utility rooms. Ventilation can take place in two different ways: by exhaust air only or by a combination of exhaust air and heated intake air.

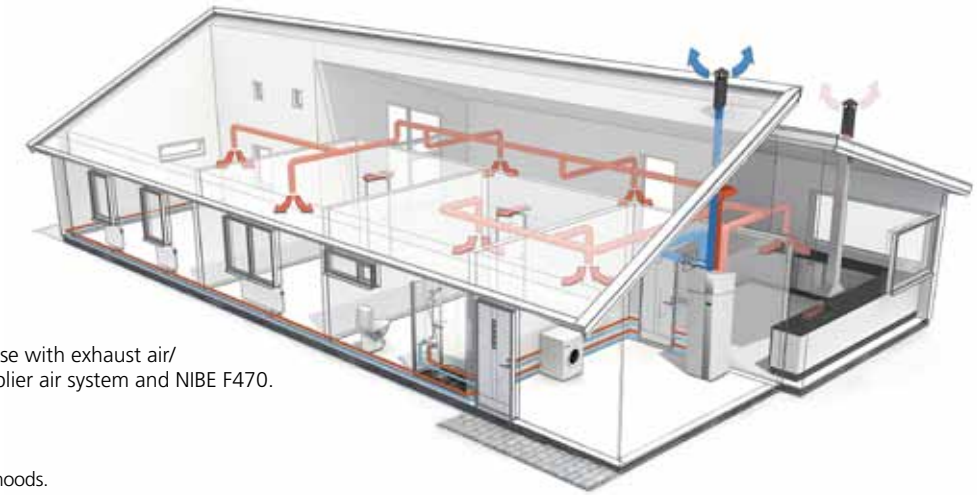
In the former, the air in the house is conveyed from rooms with outdoor air diffusers to rooms with exhaust air diffusers. The latter is designed for houses with heating systems where some of the heat supply is provided by heated supply air. The air in the house is conveyed from rooms with supply air diffusers to rooms with exhaust air diffusers.

On its way out of the house, heat is extracted from the old air and transferred into the heat pump's refrigerant circuit. The cooled air is then discharged. Meanwhile, the vapour compression cycle of the heat pump raises the temperature of the refrigerant and transfers the extracted heat into a water-based system that can either warm the domestic hot water or heat the building, or both.

An exhaust air heat pump can cover the heating requirements of a well-insulated house in all but the coldest conditions. When working efficiently, it can reduce your home's energy consumption for heating by up to 50% when compared to conventional heating systems.

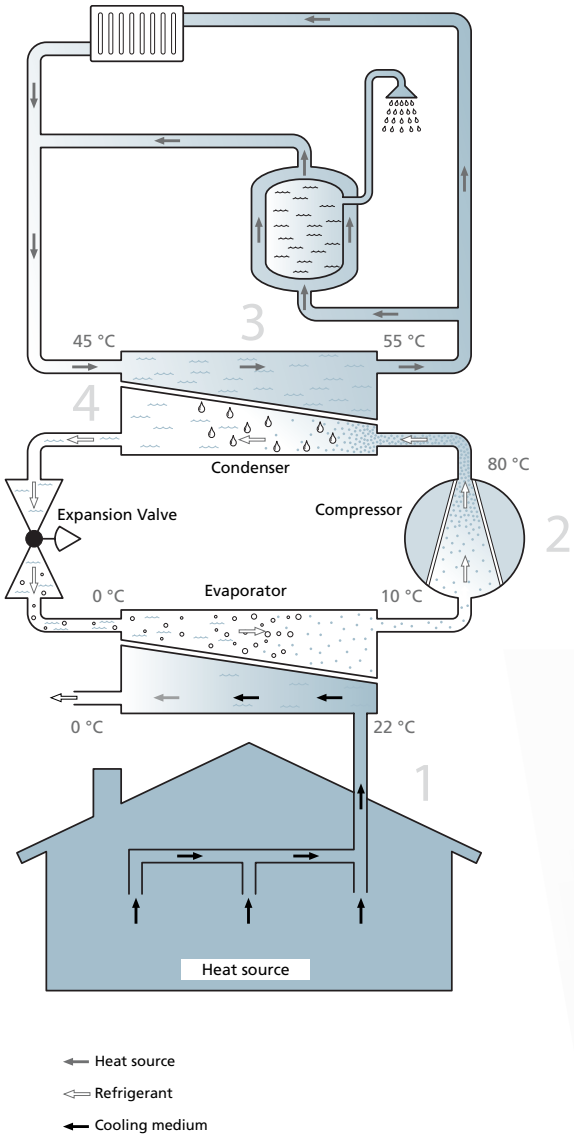
The exhaust air heat pump also works well in conjunction with an underfloor heating system to give you a comfortable indoor temperature, low running costs, a long service life and minimal maintenance.

House with exhaust air system and NIBE F370.



House with exhaust air/ supplier air system and NIBE F470.

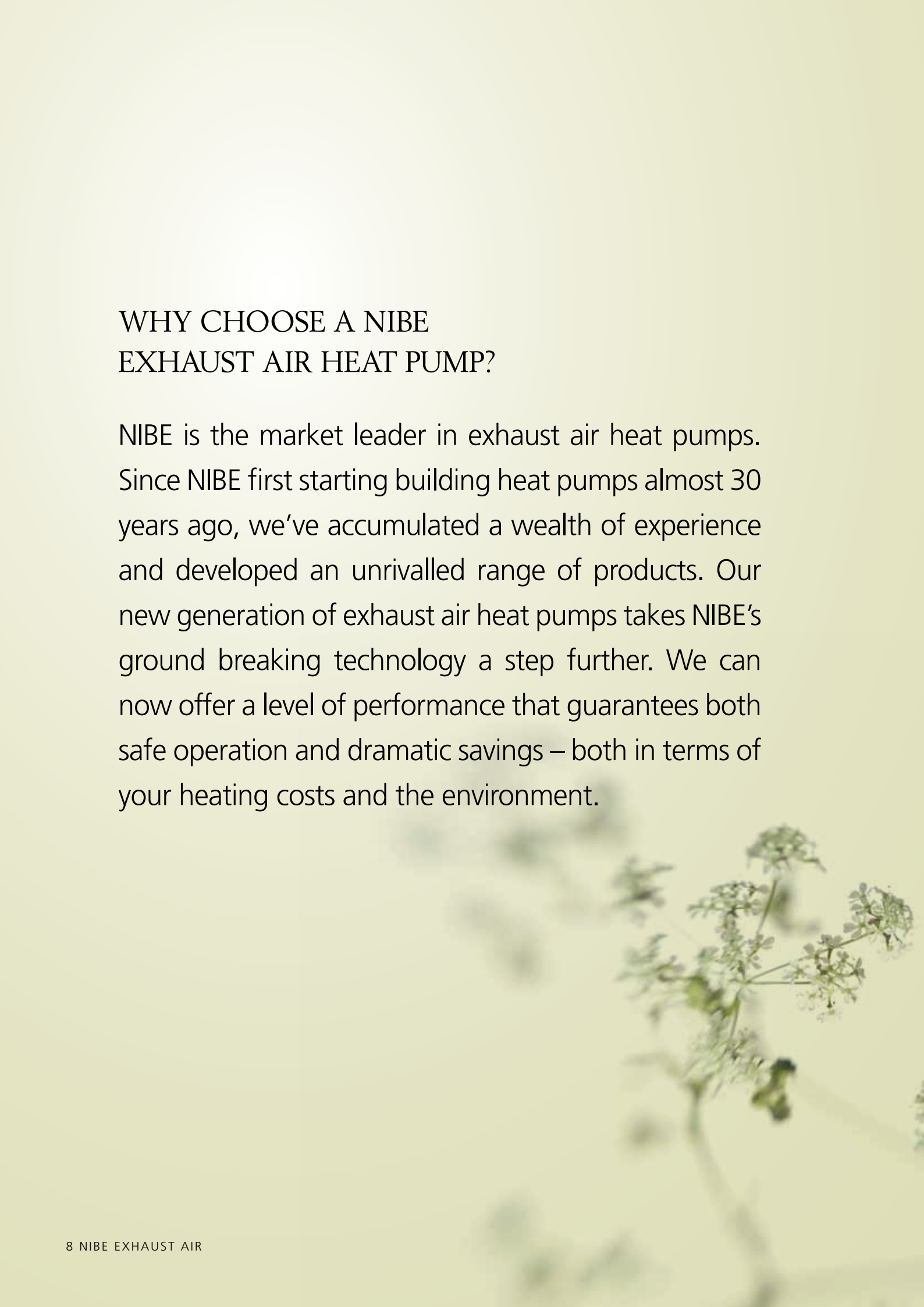
*Ventilation ducts must not be linked with cooker hoods.



1. Warm exhaust air is blown across the heat exchanger and heat is transferred into the refrigerant circuit. The cold exhaust air passes to the outside of the house.
2. The compressor raises the pressure of the refrigerant, resulting in an increase in temperature in the heat pump.
3. Energy extracted from the exhaust air is transferred into a water-based heating system to heat your home and hot water.
4. In the condenser, the refrigerant reverts to liquid form, ready to turn into gas once more and to collect new heat energy.

WHY CHOOSE A NIBE EXHAUST AIR HEAT PUMP?

NIBE is the market leader in exhaust air heat pumps. Since NIBE first starting building heat pumps almost 30 years ago, we've accumulated a wealth of experience and developed an unrivalled range of products. Our new generation of exhaust air heat pumps takes NIBE's ground breaking technology a step further. We can now offer a level of performance that guarantees both safe operation and dramatic savings – both in terms of your heating costs and the environment.



HERE ARE THREE GOOD REASONS

Cut your electricity bills dramatically
Instead of letting the energy you've already paid for escape via ventilation ducts along with used inside air, it makes perfect sense to recapture that energy and use it again.

Depending on the model you choose and the size of your home, savings achieved from installing an exhaust air heat pump can be as high as 50%. So you only pay half or even less of the cost of heating and hot water compared with a conventional electric boiler with mechanical exhaust air ventilation.

Reduce environmental impact
By extracting existing energy from your home and reusing it to heat up the tap water and the radiators, an exhaust air heat pump leads to much lower CO_2 emissions. What's more, NIBE's exhaust air heat pump can be connected to a solar energy system such as solar panels on the roof of your home. This means you can take advantage of completely free energy from the sun, without being fully dependent upon it.

Meet new building regulations
Install a NIBE exhaust air heat pump in your home and it will be well equipped to meet current and future building regulations. In some parts of Europe, stringent rules concerning domestic energy efficiency and ventilation in newly built homes already apply. These are likely to get stricter and eventually become standardised across the continent.

More good reasons to choose a NIBE exhaust air heat pump

- Get a complete all-in-one system that provides heating, ventilation and hot water
- A complete exhaust air 'package' which includes every single component, down to the last screw or valve. It's convenient for the installer and cost-effective for you.
- The whole system has been designed to work and look good together.
- You don't need a large utility room to install a NIBE exhaust air heat pump. A NIBE exhaust air heat pump has normal dimensions (approximate: 60cm x 62.5cm x 210cm).
- Your home is continually, automatically ventilated without becoming cold. There's no need to 'air' the rooms.
- You avoid all the problems associated with damp. Houses that have an exhaust air heat pump, and hence a good ventilation system, stay dry and healthy.

NIBE exhaust air heat pump installed in your home

The illustration on this page shows some of the many advantages you get from installing an exhaust air heat pump in your home. However, the different heat pump models do vary, so for specific functions and features of all NIBE exhaust air heat pumps, please refer to the product pages 18 – 21.

Three functions in one:
HEATING, DOMESTIC HOT WATER AND VENTILATION

All these functions are provided by your NIBE exhaust air heat pump. Water-borne distribution of heating takes place via radiators and/or an underfloor heating system.

Zero visual impact:
TECHNICAL INSTALLATION ALL INDOORS

Since 100% of the technical installation is inside the actual house, there is no visible evidence in your garden.

Discreet design:
NEUTRAL APPEARANCE, ADAPTED TO ANY INTERIOR

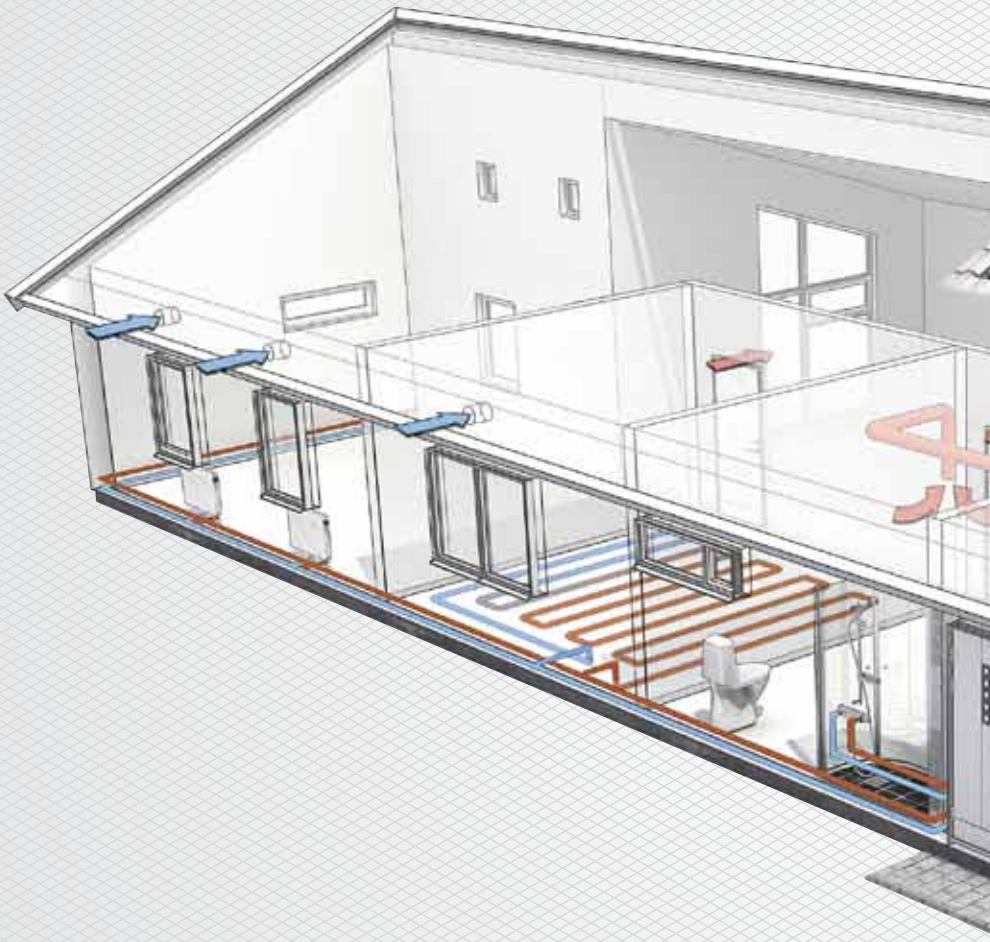
An attractive but discreet design makes our exhaust air heat pumps easy to place in your home. Since the design is pleasing to the eye, it can even be positioned in a more visible area.

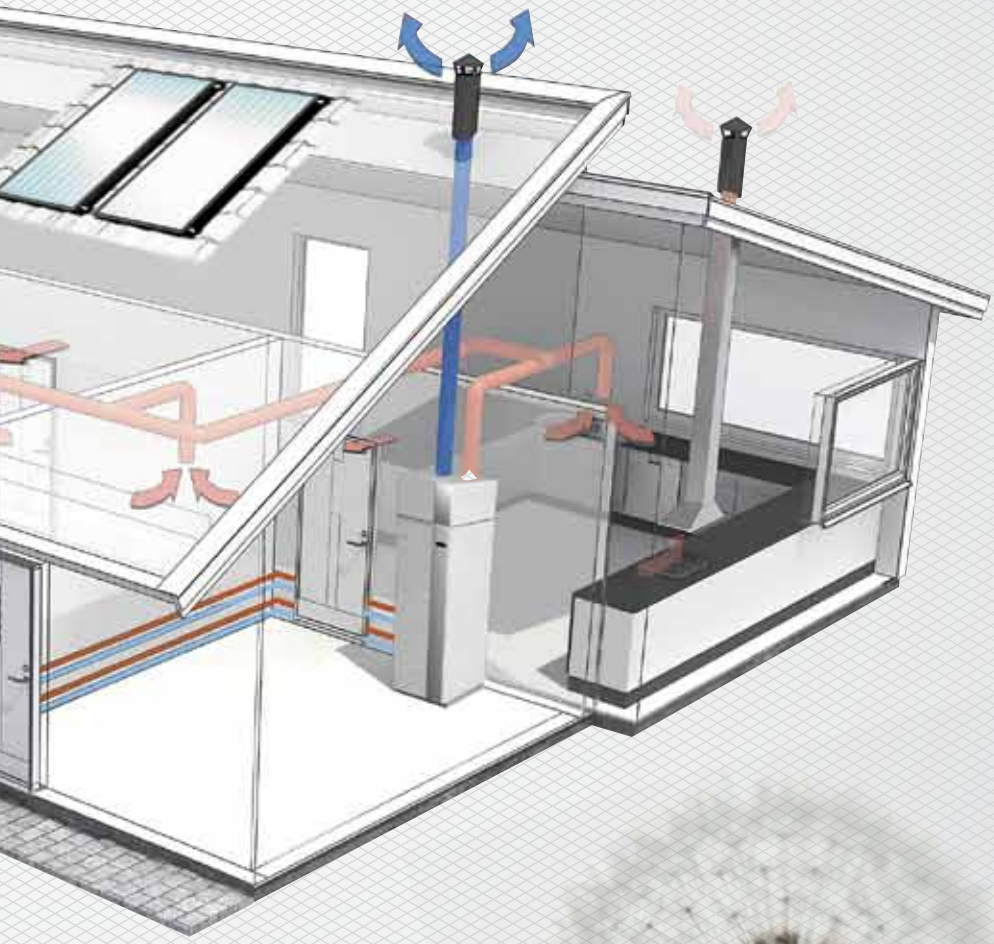
Outdoor sensor:
MINIMISES WASTE AND ENSURES ECONOMICAL OPERATION OF THE HEAT PUMP

A sensor placed on an exterior house wall reports the outdoor temperature to your heat pump so that it can vary output in relation to need.

Compatibility:
CONNECTS EASILY WITH OTHER ENERGY SOURCES

When you need an additional energy source, your NIBE exhaust air heat pump can be hooked up to. district heating, gas boiler or a wood fired boiler.





Ventilation:

TWO WAYS OF VENTILATING YOUR HOME

In some cases, fresh air is supplied directly from wall vents, which is both energy-efficient and quiet. Alternatively fresh air can first be directed into the heat pump to be heated up before distribution. This ensures an even temperature.

Two air sources:

FOR EVEN GREATER SAVINGS

Some heat pump models (such as the NIBE F640) can combine exhaust air and outdoor air. With this volume of air in the heat pump it's possible to have a larger, more powerful compressor, and deliver even greater savings.

Solar energy:

ALMOST EMISSION FREE

Your exhaust air heat pump can be complemented with a green energy source such as solar or wind power. However, this requires solar panels and an extra accumulator tank.

NIBE™ SMS 40

REMOTE CONTROL

With SMS 40 you can control your heat pump remotely via your mobile phone to do things like increasing the temperature at home on the way back from your holiday. Works with exhaust air heat pumps NIBE F370, NIBE F470, NIBE F750, NIBE FLM + NIBE F1245.

NIBE™ ECS 40

DISTRIBUTE HEAT TO MORE THAN ONE SYSTEM

Using the ECS 40 accessory, you can choose to share the heat from your heat pump with up to four different heating systems. This is the ideal solution if you have underfloor heating on the ground floor and radiators upstairs. Works with exhaust air heat pumps NIBE F370, NIBE F470, NIBE F750, NIBE FLM + NIBE F1245.

NIBE EXHAUST AIR HEAT PUMPS & ACCESSORIES

Presenting the new generation

A NEW GENERATION OF EXHAUST AIR HEAT PUMPS

NIBE has been steadily developing heat pump technology over many years, leading to increasingly sophisticated, energy-efficient products. However, we understand that our customers want neat, efficient solutions that are practically 'plug & play'. So while our products have become more sophisticated, we've also made them simpler to install and use.

Efficiency gains
Designed for connection to a heat distribution system such as radiators, convectors and/or underfloor heating, our new generation of exhaust air heat pumps offer astonishing savings and big environmental benefits.

They reduce your energy consumption even more than earlier models. Further reducing CO_2 emissions as well as energy costs, this efficiency gain is good news for home-owners and the environment.

Colour display
A large, easy-to-read multicolour display features clear information about status, operation time and all temperatures in the heat pump; an easily navigated control unit enables users to get the best performance out of the heat pump and maintain a comfortable indoor temperature at all times.

User convenience
Any heat pump model which features an integrated water heater gives you efficient water heating and plentiful hot water, and has a thick a layer of Neopore insulation to prevent heat loss.

You can save even more energy by scheduling your heat pump to provide for the varying energy needs of your household, on a daily, weekly or longer term basis.

User-friendliness
Our new generation of heat pumps has an intuitive interface, which benefits both the end user and the installer. For example, an automatically activated guide leads you through the set-up process quickly and correctly. There is a help function for more information about each function, and an alarm which highlights problems and suggests how to solve them. The inclusion of USB ports make software updates and operating data downloads quick and simple to perform.

NIBE's new generation of heat pumps feature large, easy-to-read multi-colour displays.

NIBE EXHAUST AIR 15

EFFICIENT AND USER-FRIENDLY EXHAUST AIR HEAT PUMPS

We've highlighted some of the key features of our new generation exhaust air heat pumps below. Thanks to a combination of advanced engineering and numerous efficiency enhancing features, NIBE F750 gives you unrivalled annual average energy savings and maintains a comfortable indoor climate all year round, regardless of the weather.

You don't need to be a technical genius to make these heat pumps work for you. A large, easy-to-read multi-colour display gives everyone the chance to maximise the energy saving potential of this green technology.

Modular design

FOR EASY ADDITION OF ACCESSORIES

This heat pump and its accessories are designed to be placed together and create a streamlined appearance. Whether you choose a cabinet to hide the ventilation pipes or a separate VPB storage tank to supply more hot water, the overall effect is that of a single, neat system.

Insulation of the hot water tank

MINIMISES HEAT LOSS AND SAVES MONEY

An extra thick and efficient layer of insulating material made of Neopore retains the heat inside the tank, which in turn saves you money.

Low energy circulation pump

REDUCES ENERGY CONSUMPTION AND COSTS

Steered by software in the heat pump, the speed of the circulation pumps changes in accordance with the building's energy requirements and the outdoor temperature.This is highly economical as it means only the correct amount of energy is produced.

Well-structured interior

REDUCING THE NEED FOR A USER MANUAL

Our heat pumps come with a user manual handily positioned in a special pocket inside the aluminium door. However, installers will find that the inside of the heat pump is so neatly and clearly organised that they hardly ever need to refer to the manual.

USB ports

FOR UPLOADING AND DOWNLOADING DATA

Having USB ports gives several advantages. For example, home-owners can download historic operating data onto a memory stick and give it to their local NIBE specialist, eliminating the need for a home visit.

Exterior design

AN ATTRACTIVE PIECE OF EQUIPMENT IN YOUR HOME

The main body of the heat pump is plain white, which means it fits into your utility room without any problem. There are also attractive design details such as brushed aluminium flap door with a window through which the digital display is visible.

Low energy fan

FURTHER REDUCES POWER CONSUMPTION

At NIBE we design and build heat pumps with the aim of maximising energy savings. The choice of a low energy fan in the ventilation unit is one more example of this principle at work.

Powerful, inverter controlled compressor

LARGER CAPACITY AND GREATER EFFICIENCY

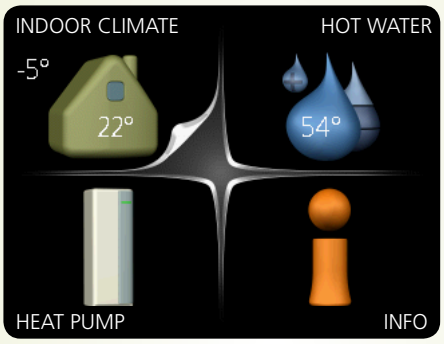
An inverter controlled compressor increases heat pump capacity at the same time as the efficiency level is improved, because it only generates energy when it is required. The heat pump can cool ventilation air to very low temperatures, reclaiming the maximum amount of energy from exhaust air.

The design of the hot water tank

FOR ECONOMIC HOT WATER PRODUCTION WITH HIGH EFFICIENCY

The hot water is heated by a heating coil, which gives fast and efficient hot water charging.

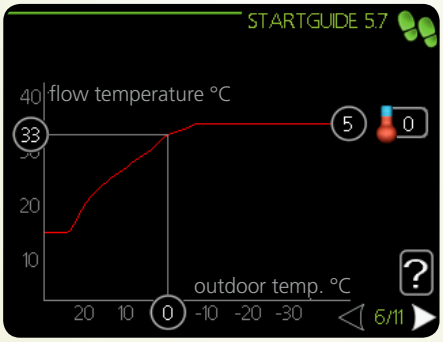
THE DISPLAY



Colour display

FOR A QUICK OVERVIEW OF OPERATION

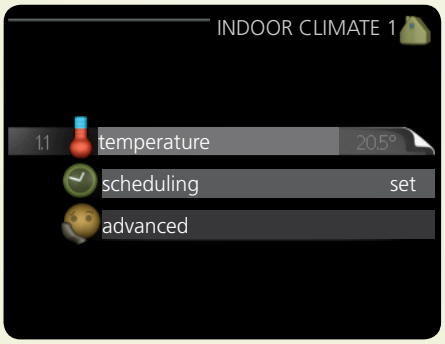
The unique colour display shows four icons representing the house temperature, the heat pump, hot water and "information". You can choose to see selected icons when the aluminium door of the heat pump is closed.



Start-up guide

FOR EASY COMMISSIONING

The start-up guide on the display is automatically activated during installation. It poses a series of questions such as which language should be used and which, if any, accessories will be hooked up to the heat pump. In this way, the installer is guided quickly and correctly through the set-up process.



User interface

MAKING IT EASY TO GET THE MOST OUT OF YOUR HEAT PUMP

Open the aluminium door and select which one of the four areas you want to view in more depth. With just three commands to choose from – select, return and scroll – navigation could not be more straight forward.
Behind this simple exterior lies a sophisticated control system, enabling you to adjust the climate in your home, boost hot water capacity, switch to economy mode before a weekend away, and much more.

NIBE EXHAUST AIR HEAT PUMPS PRODUCT RANGE

NIBE™ FIGHTER 120

A heat pump divided in two, so you can choose between two sizes of water heater. This also means great installation flexibility.

The NIBE FIGHTER 120 supplies hot water, ventilation and recycling for houses with electric radiators. It has an external low energy circulation pump and an integrated low energy fan that ventilates and recycles energy in the ventilation air as well as producing hot water. It includes a free-standing VPD10 water heater. Choose between a volume of 150 or 300 litres. Each heater offers stainless steel anti-corrosion protection.

NIBE FIGHTER 120	
Height/Width/Depth	600/600/456 mm
Net weight	38 kg
Electrical connection	230 V~ 1-phase+ N
Refrigerant	R134a

NIBE VPD10 150-R Height/Diameter	840/600 mm
NIBE VPD10 300-R Height/Diameter	1 550/600 mm

NIBE™ FIGHTER 200P

A complete heat pump for hot water, ventilation and heat recycling. Suitable for houses where heating is supplied partly by small floor coils or individual water radiators and partly by electric radiators.

The NIBE FIGHTER 200P has an integrated exhaust air fan, electric boiler and water heater with maintenance-free copper corrosion protection. Energy is extracted from the ventilation air and fed into the boiler section. The heat pump ventilates the house, heats the hot water and delivers heat to smaller radiator/underfloor systems or supply air units.

A 1.5 kW immersion heater is connected if the output from the heat pump is insufficient. The insulation consists of moulded, freon-free polyurethane, which keeps heat losses to a minimum.

NIBE FIGHTER 200P	
Height/Width/Depth	2 095/600/615 mm
Net weight	195 kg
Water capacity, outer jacket	70 litres
Wolume, hot water cylinder	170 litres
Electrical connection	230 V~ 1-phase + N
Refrigerant	R290 (propane)
Immersion heater rated output	1.5 kW
Corrosion protection	Copper

NIBE™ F370

NEW GENERATION

NIBE F370, one of our new generation of heat pumps, provides you with cost-effective and environmentally friendly domestic heating. It features an integrated water heater, immersion heater, low energy circulation pump and control system to ensure reliable and economical operation. The built-in water heater is insulated with environmentally friendly thermal insulating material which minimises heat loss. Equipped with a low energy ventilation fan, NIBE F370 ventilates your home by the exhaust air method. Air is conveyed from rooms with outdoor air diffusers to rooms with exhaust air diffusers - ventilating the whole building.

NIBE F370 can be connected to any low temperature distribution system such as water-based radiators or underfloor heating. It is also prepared for connection to several external products and accessories such as an extra water heater.

A clear, easy-to-read display screen gives you information about the heat pump's status, operating times and temperature readings. Heat, hot water production and even ventilation can be scheduled day by day or for longer periods such as during holidays. The heat pump is also equipped with a USB-port for quick software updates and information downloads.

NIBE F370

Heating capacity (PH)*	2.03 kW
COP*	3.24
Heating capacity (PH)**	2.18 kW
COP**	3.93
Height/Width/Depth	2 100/600/615 mm
Net weight	205 kg
Volume, outer jacket	70 litres
Volume, hot water cylinder	170 litres
Electrical connection	400 V~ 3-phase + N
Immersion heater rated output (adjustable)	10.25 kW
Refrigerant	R290 (propane)
Corrosion protection	Stainless steel/Copper/Enamel

* According to EN14511, A20(12)W45 at 150m³/hr ventilation
** According to EN 14511, A20(12)W35 at 200m³/hr ventilation

NIBE™ F470

NEW GENERATION

NIBE F470, one of a new generation of heat pumps, provides you with cost-effective and environmentally friendly domestic heating. It features an integrated water heater, immersion heater, low energy circulation pump and control system to ensure reliable and economical operation. The built-in water heater is insulated with environmentally friendly thermal insulating material which minimises heat loss.

Equipped with two low energy fans, NIBE F470 ventilates your home with a combination of exhaust air extraction and heated supply air. Exhaust air is drawn out from the house and supply air is drawn in through a duct in the exterior wall. When supply air passes through the heat pump, it is heated up and diffused to the chosen rooms as needed.

NIBE F470 can be connected to any low temperature distribution system such as water-based radiators or underfloor heating. It is also prepared for connection to several external products and accessories such as an extra water heater. A clear, easy-to-read display screen gives you information about the heat pump's status, operating times and temperature readings. Heat, hot water production and even ventilation can be scheduled day by day or for longer periods such as during holidays. The heat pump is also equipped with a USB-port for quick software updates and information downloads.

NIBE F470

Heating capacity (PH)*	2.03 kW
COP*	3.24
Heating capacity (PH)**	2.18 kW
COP**	3.93
Height/Width/Depth	2 100/600/615 mm
Net weight	203 kg
Volume, outer jacket	70 litres
Volume, hot water cylinder	170 litres
Electrical connection	400 V~ 3-phase + N
Immersion heater rated output (adjustable)	10.25 kW
Refrigerant	R290 (propane)
Corrosion protection	Stainless steel/Copper

* According to EN14511, A20(12)W45 at 150m³/hr ventilation
** According to EN 14511, A20(12)W35 at 200m³/hr ventilation

NIBE™ FIGHTER 640P

A combined exhaust air/outdoor air pump with integrated low energy fan, immersion heater and water heater. That gives you heating, hot water and ventilation.

The NIBE FIGHTER 640P is designed for a water-based (low-temperature) radiator or underfloor heating system. Energy is obtained from the used air and the outdoor air, and is then supplied to the heating system and/or water heater. The combination of outdoor air and exhaust air produces a greater compressor output, which generates a saving of up to 20% over that of a conventional exhaust air heat pump. The unit can be split, which makes installation easier, especially when there is a low ceiling.

NIBE FIGHTER 640P

Height/Width/Depth	2 095/600/640 mm
Net weight	210 kg
Water capacity, outer jacket	55 litres
Volume, hot water cylinder	189 litres
Electrical connection	400 V~ 3-phase + N
Refrigerant	R290 (Propane)
Immersion heater	9.0 kW
Corrosion protection	Enamel

NIBE™ F750
NEW GENERATION

NIBE F750 has a large, powerful compressor that can meet the energy needs of a property of up to 200 m². NIBE F750 comes supplied as a complete package that can provide your property with heating, hot water and ventilation. As the compressor is inverter-controlled, operation is very economical and the heat output is two or even three times higher than for conventional exhaust air models. Other energy saving features include a well-insulated hot-water tank, and a circulation pump and ventilation fan to help keep energy consumption to a minimum.

NIBE F750 has an innovative colour display with simple menus and clear symbols that make it easy for you to control consumption and monitor run time, or create your own personal settings. The heat pump is equipped with an attractive, stylish aluminium cover. It also has a USB port that makes it easy to update software and download operating data.

NIBE F750

Heating capacity (PH)*	1.15/2.47 kW
COP*	3.18/2.60
Heating capacity (PH)**	1.46/4.06 kW
COP**	4.72/2.93
Height/Width/Depth	2100/600/610 mm
Net weight	235 kg
Volume, temperature equalisation vessel	25 litres
Volume, hot water cylinder	180 litres
Electrical connection	400 V (3-fas+N)
Refrigerant	R407c
Output Immersion heater	0.5 – 6.5 kW
Corrosion protection	Stainless steel

* According to EN14511, A20(12)W45 at 108m³/hr ventilation and minimum/maximum compressor speed.
** According to EN 14511, A20(12)W35 at 216m³/hr ventilation and minimum/maximum compressor speed.

NIBE™ FLM module + NIBE™ F1245

NEW GENERATION

Enjoy extra savings when you combine an advanced ground source heat pump with an exhaust air module.

Developed to work with NIBE ground source heat pumps, the NIBE FLM exhaust air module recycles mechanical exhaust air, improving your indoor air quality at the same time as reducing your heating costs. Developed to work with NIBE ground source heat pumps, the NIBE FLM exhaust air module recycles mechanical exhaust air, improving indoor air quality while reducing heating costs. It has an integrated adjustable low energy fan to give you the amount of ventilation you need. Everything is displayed on the heat pump display and can be centrally controlled, helping you optimise energy savings. The module can be fitted directly to the heat pump or hung on the wall.

Combine with a NIBE F1245, a highly advanced ground source heat pump which includes an integrated hot water heater, immersion heater, low energy circulation pumps and a control system. Suitable for connection to a heat distribution system such as radiators, convectors or underfloor heating, the F1245 produces heat safely and economically. NIBE F1245 is equipped with a control unit to ensure you always have a comfortable temperature in your home. Clear information about status, operation time and all temperatures in the heat pump are shown on the large and easy-to-read display, eliminating the need for external unit thermometers.

NIBE FLM & NIBE F1245

Types	F1245 – 6, 8, 10, 12 kW
Height/Width/Depth	2 100/600/625 mm
Net weight	360 kg
Volume, hot water cylinder	180 litres
Electrical connection	400 V~ 3-phase + N
Refrigerant	R407C
Immersion heater, max	9 kW
Corrosion protection	Stainless steel/Copper/Enamel

ACCESSORIES

For a neater installation

NIBE™ Cabinet
Hide unsightly ventilation pipes inside this specially designed cabinet.

Upper cabinets for room heights up to 2400 mm, 2500 mm and from 2550 - 2800 mm.

Control the heat pump from your mobile phone

NIBE™ SMS 40 and Mobile App
Control your NIBE Heat pump from your pocket. Turn on the heat on your way home or check your indoor climate from anywhere in the world..

NIBE Mobile App Requirements
NIBE F1145, F1245, F370, F470 or F750 (firmware version 1177 or higher) together with NIBE SMS 40 (version 33 or higher recommended) and an Android mobile phone.

Distribute heat to more than one system

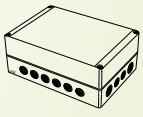
NIBE™ ECS 40 / 41
ECS is used when a heat pump (NIBE F370/F470/F750) is installed in houses with up to four different climate systems that require different flow line temperatures. For example, in cases where the house has both a radiator system and an underfloor heating system.

ECS 40 is used for floor heating < 80 m².
ECS 41 is used for floor heating > 80 m².

Connect the heat pump to other heat sources

NIBE™ DEH 40/41 Docking kit
There are separate docking kits available for connecting other heat sources to the heat pump (NIBE F370/F470).

DEH 40 /Docking kit wood/oil/pellets
DEH 41 /Docking kit gas



Complement with solar energy

NIBE™ Solar 41
NIBE SOLAR 41 offers solar heating when connected to NIBE F370/F470. Enjoy a complete solar heating system with additional solar panels and UKVS 230.

NIBE™ MCU 10
Multi charging unit
This accessory is used in NIBE Solar package with NIBE F370/F470/F750.

NIBE™ SPS 10
Solar pump station
NIBE SPS 10 is a complete solar pump station for installation together with solar panels. Used in NIBE Solar package with NIBE F370/F470/F750.

NIBE™ SCA 40
Solar accessory
For solar connection and large hot water demand.

Together with NIBE F750 and VPBS 300.

Accumulator tank with water heater

NIBE™ VPB 200
A separate storage tank that you can connect to your system. It provides the hot water you need, or boosts the capacity of an existing system.
NIBE VPB is the new generation of accumulator tank. Dock the accumulator with other systems, such as the NIBE F750 heat pump.

NIBE™ DEW 40
Docking kit
For docking a VPB 200 to a F750 in houses where there is a heavy demand for hot water.

Accumulator tank with water heater

NIBE™ VPBS 300
NIBE VPBS is a new type of water heater for connecting to and combining with heat pumps and solar panels. Best combined with NIBE F750.

Accumulator tank

NIBE™ UKVS 230
UKVS 230 is an accumulator tank with coil for solar panels.
UKVS 230 is intended to be used for heat storage when a smaller heat pump is docked with solar panels. It is also possible to dock another heat source.

The convenient way to read your heat pump

NIBE™ RMU 40
With this handy remote control unit positioned in your hallway, kitchen or wherever you want to put it, you can keep in touch with what's happening at the heat pump and change the most common settings remotely. Works with exhaust air heat pumps NIBE F370, NIBE F470, NIBE F750, NIBE FLM + NIBE F1245.

Control the heat pump externally

NIBE™ Modbus 40
Communication module
Control and monitor heat pumps (NIBE F370/F470/F750) with the Modbus communication module.

Supply air module

NIBE™ SAM 40
SAM 40 is a supply air module specially developed for houses with supply and exhaust air systems. Works with NIBE F750.

AN INVESTMENT IN THE FUTURE

When you install a NIBE exhaust air heat pump you can reduce your energy costs by up to two thirds.

NIBE exhaust air heat pumps are ideal for houses of most sizes. Their control system is designed to work perfectly and provide heat for both water-based traditional radiators or underfloor heating systems. See what kind of savings you can achieve below.

Detached house heated by NIBE exhaust air heat pumps, savings (kWh)/year*

Size of house	NIBE FIGHTER 200P	NIBE F370/470	NIBE FIGHTER 640P	NIBE F750	NIBE F1245/FLM
100 m²	4000 - 6700 *	6500 - 7300	6500 - 7300	8900 - 10000	9600 - 11600
150 m²	4000 - 8000 *	8100 - 8800	8100 - 8800	11400 - 13200	11400 - 14000
200 m²	4000 - 8400 *	8700 - 9300	8700 - 9300	13900 - 16200	14400 - 17700

** This value varies, depending on energy used and exhaust air flow*

CASE

A USER FRIENDLY HEAT PUMP THAT LIVES UP TO ITS NAME!

Background

The Niklasson family, two adults and three teenagers, live in a house in the Swedish countryside. Their house was built in 1980, has a total living area of 165 m2 and is equipped with water-based central heating. Originally, energy was provided by a NIBE domestic boiler and mechanical ventilation system. Using this system, the family's annual energy consumption was approximately 27000 kWh. In 1990, the owners installed a NIBE exhaust air heat pump. This reduced their energy consumption to 20,000 kWh and gave loyal service for nearly 20 years. Eventually, they decided to replace their old NIBE heat pump with a newer model.

Solution

They chose the NIBE F370 exhaust air heat pump, which has an integrated water heater, immersion heater, circulation pump and control system. Being designed to work with water-based radiators or underfloor heating, it suited the Niklasson's home perfectly. NIBE F370 also includes a ventilation fan, which ventilates the whole building by the exhaust air method. The house also has a Contura 660T wood burning stove, which the family decided to keep for extra comfort heating.

Results

Thanks to the powerful compressor, better insulated tank and intelligent control system of the NIBE F370, the household's electricity consumption is reduced by a further 1000 kWh/year. The family's total energy consumption is now around 19,000 kWh per year (of which household electricity use accounts for approximately 8,000 kWh). They find it very easy to use too. "All we have to do is clean the filter a couple of times a year and pay the electricity bills," says Gunnar Nicklasson.

The NIBE F370 manages the family's fluctuating energy consumption very efficiently. The simple display screen gives them all the information they need and makes it easy to schedule in advance. Heating, hot water and even ventilation can all be planned day by day or for longer periods such as during holidays. "We are completely comfortable changing the controls ourselves," says Anna Niklasson.

NEW TIMES CALL FOR A NEW APPROACH

We all know we've got to reduce emissions. The question is how?

"Green" thinking might once have been a luxury, but lately it has become a necessity that none of us can afford to ignore. Increasingly, the reduction of CO_2 emissions is becoming a legal requirement as well as an environmental necessity.

Over 70% of an average home's CO_2 emissions are caused by its heating and hot water systems. In order to reduce this figure, we need to start implementing greener, more sustainable technologies across the board. Only then will we see a significant reduction in CO_2 emissions.

Prices of traditional energy sources are rising steadily, with the result that more and more people feel inclined to consider alternative, more efficient energy sources.

Builders, architects and property developers can no longer ignore the need to employ alternative technologies that make better use of the world's energy resources. Customers now demand them.

COMBINE TWO CLEAN, RENEWABLE ENERGY SOURCES!

Solar energy is not only free; it is silent, renewable and produces no air or water pollution. The only snag is, the sun doesn't always shine and you can't store solar energy for more than a few days. That's why NIBE has developed a solution for combining solar energy with a heat pump, so everyone can enjoy free energy from the sun. Even if you live in a country where you're not guaranteed daily sunshine. Find out more at www.nibe.eu/solar

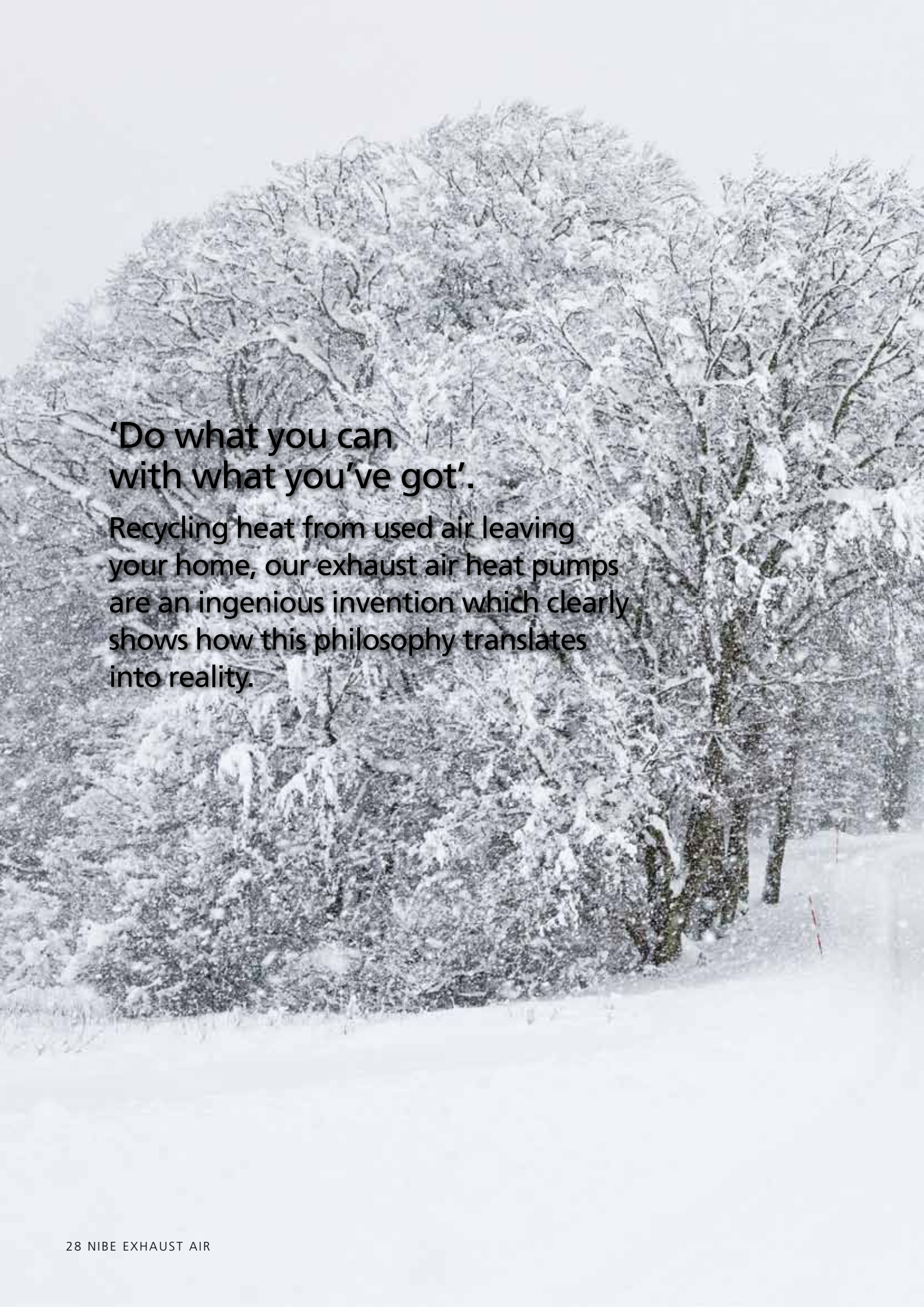
Neither the heat pump nor a solar energy system uses any combustion process to generate heat. The exhaust air heat pump simply recycles existing energy and reuses it to heat your home and hot water.

It uses much less electricity compared to other heating sources, as it's only needed to run the heat pump and enable the heat extraction process. Solar panels require no electricity at all.

Working towards a zero carbon future

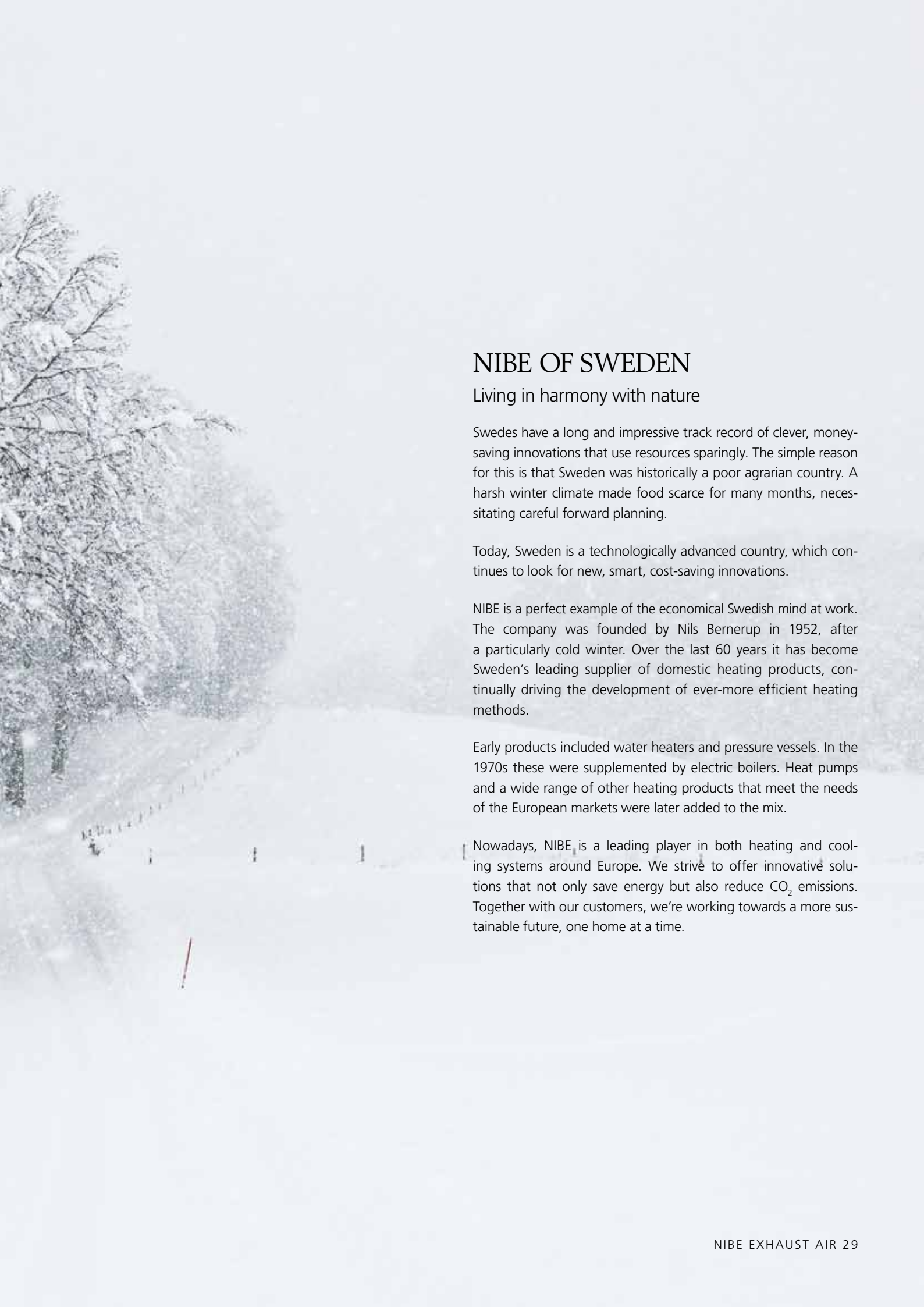
The drive to reduce energy consumption and the impact its use has on the environment is crucial and increasingly important to us all. Why not take a step closer towards a zero carbon future and power your heat pump using a renewable energy source such as wind power or hydro energy?

See www.nibe.eu for more information.



‘Do what you can with what you’ve got’.

Recycling heat from used air leaving your home, our exhaust air heat pumps are an ingenious invention which clearly shows how this philosophy translates into reality.



NIBE OF SWEDEN

Living in harmony with nature

Swedes have a long and impressive track record of clever, money-saving innovations that use resources sparingly. The simple reason for this is that Sweden was historically a poor agrarian country. A harsh winter climate made food scarce for many months, necessitating careful forward planning.

Today, Sweden is a technologically advanced country, which continues to look for new, smart, cost-saving innovations.

NIBE is a perfect example of the economical Swedish mind at work. The company was founded by Nils Bernerup in 1952, after a particularly cold winter. Over the last 60 years it has become Sweden's leading supplier of domestic heating products, continually driving the development of ever-more efficient heating methods.

Early products included water heaters and pressure vessels. In the 1970s these were supplemented by electric boilers. Heat pumps and a wide range of other heating products that meet the needs of the European markets were later added to the mix.

Nowadays, NIBE is a leading player in both heating and cooling systems around Europe. We strive to offer innovative solutions that not only save energy but also reduce CO_2 emissions. Together with our customers, we're working towards a more sustainable future, one home at a time.

SMART, ECONOMICAL ENERGY SOLUTIONS FROM NIBE

Complete range of products and systems

NIBE Energy Systems offers a complete range of energy-efficient solutions for heating, ventilation, cooling and heat recovery that reflect today's demand for sustainable construction. Our products and services make it easy for private and commercial property owners to choose a system that best suits their needs for indoor climate comfort and hot water. Visit www.nibe.eu. for more information.

Exhaust air heat pumps

Ideal for heating domestic premises and tap water, an exhaust air heat pump ventilates your building and recovers energy in warm air, reusing it to heat your household water or fuel your central heating system.

Ground source heat pumps

Drawing heat from surface soil, bedrock or the water in a nearby lake, ground source heat pumps are a great option for heating houses, multiple-unit properties and other larger buildings. Available with or without an integrated water heater.

Air/water heat pumps

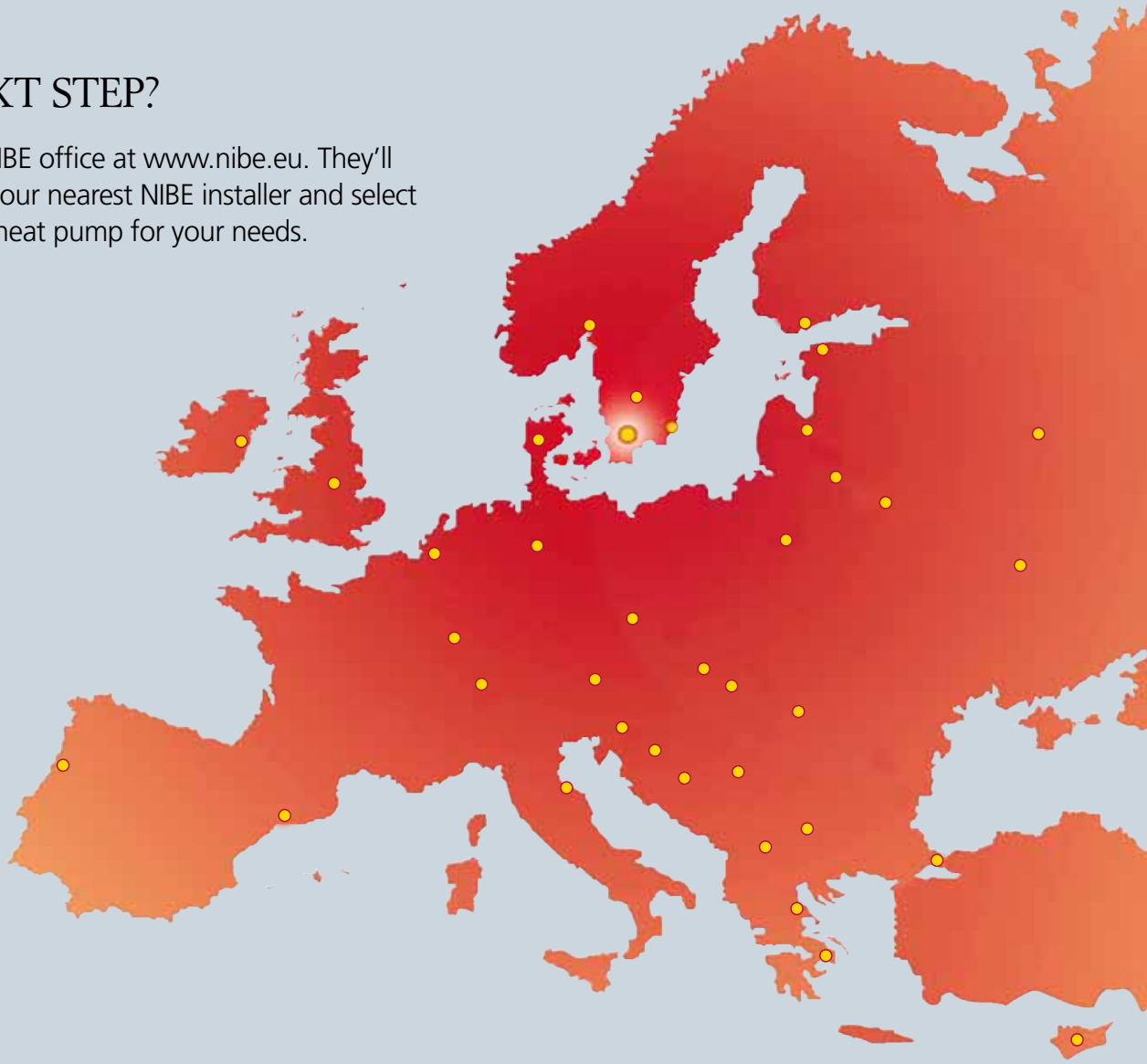
These pumps extract heat from the ambient outside air. Connected to your building's heating system they produce both heating and hot water, a big improvement on simpler types of air-to-air heat pumps.

Solar panels

Our solar thermal collectors absorb the sun's rays, delivering free, clean energy to your heating system. They become an integral part of your total energy supply supported by our heat pumps which supply this extra free energy in a smart, controlled way. You can also use our solar collectors in combination with a NIBE bio mass boiler (logs or pellets) or a NIBE water heater powered by electricity or gas.

YOUR NEXT STEP?

Find your local NIBE office at www.nibe.eu. They'll help you locate your nearest NIBE installer and select the best kind of heat pump for your needs.



20/20/20

European Directive 20/20/20

The 20/20/20 European directive imposes compulsory targets on the EU's 27 member states, specifying that 20% of energy consumption must be met by renewable sources by 2020. Since NIBE's heat pumps are now classified as a renewable energy source, their installation will help member states reach this ambitious target. And in many cases, local or regional authorities are offering home owners subsidies to switch their existing heating systems to a renewable source such as a heat pump.

A new generation of heat pumps
DESIGNED FOR EARTH

What do we mean by "A new generation of heat pumps – designed for earth?"

Our products are designed to USE THE EARTH
The main energy sources for NIBE heating solutions are the earth, the sun, ambient air or a water source near your home – one or more of which occur naturally all over the planet and are provided free by Mother Earth.

Our products are relevant ALL OVER THE EARTH
Since we now offer a system with both heating and cooling functions, you can use a NIBE heating system anywhere, regardless of your geographic location.

Our products are designed with the HEALTH OF THE EARTH in mind
NIBE products have a very low environmental impact compared to other heating systems currently available. They do have some impact, as do all manufactured goods, but we are continually working to minimise this and to deliver an environmental payback in the form of reduced emissions.

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